ABSTRACT OF THE DISCLOSURE

The invention provides a method of processing an inner surface of a bearing having a cylindrical shape which bearing includes a resin layer composed mainly of a synthetic resin as the inner surface, the method improving roughness of the inner surface and dimensional accuracy of an inner diameter of the bearing without cutting the inner surface. According to the method, the bearing is press-fitted into a jig and then the jig is mounted on a chuck. Next, a mandrel having a cylindrical bar shape is inserted into an inner diameter portion of the bearing and then the mandrel is heated by a heater up to 250°C, for example. The mandrel is expanded due to thermal expansion by the heating so that the inner surface, i.e., a surface of the resin layer is pressed by a press face of a peripheral surface of the mandrel.